SUMMIT
ENGINEERING • LABORATORY • TESTING

July 9, 2021

Mr. Austin Brown
Capital City Homes
5711 Six Forks Road, Suite #200
Raleigh, North Carolina 27609

Subject: **Summary of Slab Subgrade Material Evaluation**
Lot No. 1160 – (120 Spruce Hollow Circle)
Academy at Anderson Creek Subdivision
Spring Lake, North Carolina
Permit Number: N/A
Project Number: 6033.500 (31700-01)

Dear Mr. Brown:

On June 29, 2021, a representative of SUMMIT Engineering, Laboratory and Testing, Inc. (**SUMMIT**) visited the subject site for the purpose of observing the near surface slab bearing materials for the proposed residential structure. The following is a summary of our onsite observations and evaluation.

The proposed slab areas had a minimum of approximately 3 feet of fill placed and compacted prior to our site visit. Our work included testing and bearing grade evaluations of the in-place soil at the slab bearing grade. Hand auger borings were incrementally advanced by manually twisting a sharpened steel auger into the soil at selected locations within the slab. The soil consistency at the slab bearing elevation and at selected intervals below the bearing grade were evaluated by Dynamic Cone Penetrometer (DCP) testing. The conical point of the DCP was first seated to penetrate any loose cuttings and then driven three additional 1-3/4 inch increments with blows from a 15-pound hammer falling 20 inches. The soil's strength characteristics and foundation support capability were determined based on the average blows per increment (bpi) over the last two increments to achieve this penetration. The entire slab area was evaluated by hand probing using a ½ inch diameter steel probe rod to check for soft areas at the surface intermediate of our hand auger boring locations.

The materials exposed at the slab areas generally consisted of brown-tan, sandy-clay (fill soils) and were free of significant quantities of organics and debris. If additional testing for the purpose of estimating volumetric change (shrink/swell) potential or to estimate consolidation of the tested soils is desired, **SUMMIT** can provide these services.

Based on the results of our DCP testing, hand probing, and our site observations, the stem-wall slab backfill soils encountered are suitable for support of the proposed residential slab loading conditions.

If slab subgrade materials are exposed to inclement weather or adverse construction activities, **SUMMIT** should be contacted to re-evaluate the slab subgrade materials prior to concrete placement. If it is imminent that inclement weather is forecasted prior to concrete placement, then the slab area can be covered with a plastic sheet to help protect the slab subgrade materials from softening.

We appreciate the opportunity to assist you during this phase of the project. If you need further assistance or additional information, please do not hesitate to contact us.

Sincerely,
SUMMIT Engineering, Laboratory and Testing, Inc.

7/9/2021

NORTH CAROLINA PROFESSIONAL SEAL 036193 ENGINEER JASON B. COBLE

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